



Effect of financial technology on Nigerian banking system: A study of guaranty trust bank of Nigeria PLC

Adedokun Lateef ^{1*}, Ikenga Emem ², Osisanya Florence Prelaifa ³

¹ Department of Accountancy, School of Management and Business Studies, Yaba College of Technology, Yaba, Lagos, Nigeria

² Department of Public Administration, School of Management and Business studies, Yaba College of Technology, Yaba Lagos, Nigeria

³ Department of Business Administration, Management, Yaba College of Technology, Yaba, Nigeria

* Corresponding Author: Adedokun Lateef

Article Info

ISSN (online): 2582-7138

Volume: 04

Issue: 02

March-April 2023

Received: 14-03-2023;

Accepted: 01-04-2023

Page No: 480-488

Abstract

The study examined financial technology as a panacea for the growth and development in the banking sector. Survey research design was employed and questionnaire was used as the research instrument. The population of the study consists of the staff in Guaranty Bank of Nigeria Plc in its Lagos headquarter office. Stratified random sampling method were adopted to pick and sampled two hundred (200) respondents among staff in Access Bank of Nigeria Plc in its Lagos headquarter office while one hundred and ninety five (195) were fully completed and returned. Simple percentage was employed to analyze the responses of the questionnaires while Pearson correlation statistics was used to test the hypotheses formulated. It was found that internet banking has significant effect on the growth and development in the banking sector, automated teller machines has significant effect on the growth and development in the banking sector and that point of sales has significant effect on the growth and development in the banking sector. It was recommended that there is urgent need for staff development in the Nigeria financial sector. Staff should take proactive steps to upskill their expertise to complement an age of automation since it is humans that would eventually control how fintech operates.

Keywords: financial, technology, banking sector

1. Introduction

Through the formulation of policies that are anticipated to encourage widespread access to financial services at affordable costs, particularly for the less privileged and vulnerable group, the government of Nigeria, through the Central Bank of Nigeria, has attempted to achieve financial inclusion as an integral part of promoting sustainable and inclusive growth Akintoye, (2018) ^[13]. By increasing participation in the structured financial system, these policies and methods hope to lower the number of individuals who are excluded from it. The implementation of technology advancements in the financial industry has been one of these ongoing efforts to sustain and enhance financial inclusion. (Badescu & Garces-Ayerbe, 2019) ^[17]. Technological innovation in financial services is broadly referred to as financial technology. Financial technology involves any new technology or innovation that disrupts traditional ways of conducting financial transactions. Even more specifically, financial technology includes all software and other modern technologies used by businesses that provide automated and improved financial service delivery. Such technology in financial service delivery is expected to eliminate barriers to access to banking services, encourage the use of bank services and ultimately contribute to national economic growth (Adeleke, 2015) ^[6]. Furthermore, ADB stated that such innovations essentially serve as adequate means of providing opportunities to promote financial inclusion through reduction of costs of providing these services. Undoubtedly, the introduction of digital technology has greatly transformed the Nigerian financial sector nevertheless; the extent to which it has increased participation and accessibility of the financial services activities remains debatable (Brynjolfsson & Hitt, 2016) ^[24].

Over the past few decades, advances in information technology have revolutionized the delivery of financial services. The rise of Financial Technology (Fintech) in particular has highlighted the significance of technology in the provision of financial services. Fintech refers to the technology that are used to deliver financial services of various types, including online money transfers, financial planning services, and peer-to-peer lending and borrowing, among others. The banking sector now has a new perspective on how to address client wants and satisfaction thanks to the disruptive potentials of Fintech innovation. This justifies the financial ecosystem's ongoing and dynamic modifications in order to stay up with world events. (Ordanini & Rubera, 2015) ^[51]. There are Fintech companies that provide banking services through the use of technologies and online applications, thereby competing with conventional banks (Chishti and Barberis, 2016). The participation of Fintech companies in delivering banking services in the last few years is seen as both a threat and an opportunity to conventional banks. As a threat, Fintech have required technology to meet customers' rapidly changing expectations of speed and convenience of service. This has led to bank customers demanding for technology based banking support from their banks (Ordanini & Rubera, 2015) ^[51], which in turn put incumbent banks in a very difficult position as they do not have the technologies that match that of the Fintech companies (Roller & Waverman, 2019) ^[57]. The use of technology in providing faster and user-friendly services has made Fintech more popular and acceptable (Akindamola, 2019) ^[12]. Similarly, the ability of the Fintech to break the relationship between the banks and their customers and win the confidence of the customer is a matter of great concern to the banks (Adeleke, 2015) ^[6]. Banks, on the other hand, also see an opportunity in fintech. First and foremost, banks want to build their own Fintech to integrate it into every aspect of their operations. For instance, banks all around the world now offer financial services to those without bank accounts using mobile phones. Among other things, they also introduce digital banking solutions. Second, the banking sector now has the chance to work with Fintech firms and benefit from their creative strengths thanks to the industry's fast expansion. Although banks enjoy goodwill and client confidence, they lack the creative capacity to address complex issues. (Koellinger, 2015) ^[39].

Fintech companies, on the other hand, gain from using the legacy systems of banks instead of building one for themselves. This sort of collaboration, Ordanini and Rubera (2015) ^[51] noted, is what led to the emergence of "Open Banking." Furthermore, the development of Fintech is seen by banks as an easy option to adopt Fintech companies. Instead of developing their Fintech internally, banks now avoid internal development costs by acquiring Fintech companies (Van Ark & Piatcovski, 2017) ^[62]. The amount of secure Internet servers, mobile phone subscriptions, R&D, training, collaboration with other businesses, company size, and the availability of technical labor are only a few of the variables that affect the acceptance of financial technology innovation (Pohjola, 2018) ^[56]. Banks all around the world are utilizing fintech to enhance their offerings and gain a competitive edge, either through partnerships, acquisitions of current fintech, or the creation of their own fintech. In wealthy economies, this technique is becoming quite common, but in underdeveloped economies, particularly in

sub-Saharan Africa, there is little to no knowledge of it. This has caused Nigeria to lack in Fintech scientific research. Financial technology, as observed by Akindamola (2019) ^[12], has significantly influenced the delivery of financial services. Akindamola (2019) ^[12] further expounded that such technologies have improved security and comfort in cash handling. However, the study posited that though technology may have had a positive effect on quality of financial services, its effect on financial inclusion remains to be adequately established. The recent global focus is motivated by the increased recognition of the relevance of financial inclusion as an important element of economic development consequently creating the need for concerted efforts to eliminate or at least reduce obstacles and barriers to access to formal banking services. Researchers have so continued to be interested in how much financial technology has helped financial inclusion, particularly in emerging nations. According to Akintoye's study (2018) ^[13], financial technology created an expansion of digital payment platforms that have offered the opportunity to link poor people with providers of savings, credit, and insurance products. In the same vein, Loveman (2018) ^[43] posited that financial technology has facilitated access for lower-salary individuals with deficient financial related services choices. Pohjola (2018) ^[56] also reported that technology fostered both access to and usage of financial services thereby improving financial inclusion. The study specifically identified the positive effect of internet access and Automated teller machines.

Contrariwise, Arenaza (2019) argued that the provision of technology in finance services involves the participation and interactions of different players and the conditions of the regulatory environment which pose complexities to all participants and thus negate their role in financial inclusion. Van Ark, B., and Piatcovski (2017) ^[62] also argued that the constraints on the uptake and use of financial technology in developing markets limit the effect of financial technology on financial inclusion. Further probing the effectiveness of financial technology in improving financial inclusion in developing economies, World Bank (2020) reported that technology interference mechanisms required a foundation of dependable and productive bases that ensure that such services are user-friendly, secure and cost-effective manner. Such required dependable and productive bases are typically deficient in many developing economies and could potentially diminish the participation of citizens. Invariably, financial technology has the potential to activate the scope for better achievement of inclusion and integration; however its effect in developing economies still remains to be sufficiently validated. Furthermore, technology is a versatile and ever-changing phenomenon and hence requires continuous reevaluation to ensure relevance of empirical evidence. As a result, this study used up-to-date information to analyze how financial technology has affected financial inclusion in Nigeria, a developing country. The study's goal is to determine the impact of financial technology on the banking sector in Nigeria. Accordingly, the following are the precise goals: To determine the impact of online banking on the Nigerian financial system; To investigate the impact of ATMs on the Nigerian financial system; to evaluate the effects of Point of Sales on the financial system in Nigeria.

2. Literature Review

This section dwells on the conceptual framework, theoretical

framework and empirical literature review.

Concepts of Financial Technology

Perhaps the finest invention to occur in the banking sector in the twenty-first century is financial technology. It has enabled banking outside of bank locations. The use of numerous electronic devices, such as mobile phones, automated teller machines, point-of-sale systems, smart televisions, PCs, and tablets, among others, has made banking possible everywhere. Today, a variety of banking activities, including money transfers and receipts, balance inquiries, airtime purchases, bill payments, and account opening, may be carried out or started from a variety of locations outside of banking facilities. Researchers have characterized financial technology in a variety of ways. According to Daniel (2015), the idea is the distribution of information and services by banks to their clients via various platforms that may be accessed on a variety of electronic devices, including desktop computers, mobile phones, and digital TVs with browsers or desktop applications. Even while this description seems to be accurate, it ignores other financial technology platforms that are the subject of this study, including automated teller machines, online banking, and point-of-sale systems. In the same way, Abid and Noreen defined financial technology as any use of information and communication technology and other electronic means by a bank to conduct transactions and have interaction with stakeholders. This definition is however broader than that of Daniel as it focuses on information and communication technology. Abid and Noreen also posited that financial technology is a system of payment whereby transaction takes place electronically without the use of cash. Ayman and Poul defined financial technology as provision of banking and financial services with the help of telecommunication devices such as mobile telecommunication devices. Succinctly, Basel committee on Banking Supervision e-business in the banking sector was the only thing that was considered financial technology. The supply of banking services and goods via electronic channels, such as mobile phones, the internet, automated teller machines, and point-of-sale facilities, may be referred to as financial technology. This is because of these definitions. Financial technology, put simply, refers to the supply of banking goods and services via electronic means. The internet has recently altered financial technology, creating a new delivery channel that has streamlined banking transactions for both clients and banks. Financial technology has been present for a while in the form of automated teller machines and mobile phone transactions. Moddibo.

FinTech is a term used to refer to „financial technology“. FinTech is a relatively new concept for many consumers and various attempts have been made towards a comprehensive definition of the term, however there is no generally accepted definition for the term today as the term is still loosely defined. According to Arner, DW, *et al.* 5., Financial technology“ or „FinTech“ refers to “technology-enabled financial solutions”. According to Farhan, it can be defined as the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions and markets. It includes institutional, product and process innovation“. To Kim, Fintech is a service sector, which uses mobile-centered IT technology to enhance the efficiency of the financial system“. McCauley, D.8 viewed it as „An economic industry composed of companies that use technology to make financial systems more efficient“.

Investopedia9 defined it as a portmanteau of financial technology that describes an emerging financial services sector in the 21st century. According to Fintech weekly, FinTech represents a company that uses software and contemporary technologies to provide financial services. The organization is described by Ernst & Young11 as one that "combines new business models and technology to facilitate, enhance, and disrupt financial services." Fintech refers to businesses that produce financial services and products by depending on a more intensive use of information technology, despite definitions differing in this regard. Fintech, in its most basic definition, is the use of financial technological advancements to provide financial services in a way that is simpler, quicker, less expensive, transparent, more efficient, and user-friendly.

Bank Competitive Advantage

The concept of competitive advantage has been a hot issue in the field of competitive strategies and much controversy has been raised in relation to competitive advantage. Nevertheless, providing a precise definition of competitive advantage is a difficult task (Hakkak & Ghodsi, 2015). Too many returns have been used to define competitive advantage on the one hand, and expectations and the performance of the capital markets on the other. However, the most typical definition of a competitive advantage in the context of value creation and competitive strategy is any factor that causes revenues to outpace costs (Rumelt, 2013). A competitive advantage is a value adding strategy that is not being implemented by potential competitors and can hardly be duplicated by competitors. A sustained competitive advantage needs to last for a considerable period of time. Competitors involve both the current firms in operation as well as potential firms that are planning to enter the market in the near future (Baumol, Panzar, & Willig, 2012). According to Lippman and Rumelt (1984), efforts to duplicate a competitive advantage need to have been rendered futile for a period of time for it to be considered sustainable (Oliver, 1997). According to (Barney, 1991), for a resource to provide a sustainable competitive advantage, it needs to add value to the firm, be unique, perfectly imitable and cannot be substituted by another resource by competing firm.

Others see competitive advantage is an advantage over competitors gained by offering consumers greater value, either by means of lower prices or by providing greater benefits and service that justifies higher prices (Ohaga, 2014). It gives a company an edge over its rivals and an ability to generate greater value for the firm and its shareholders. The more sustainable the competitive advantage, the more difficult it is for competitors to neutralize the advantage. The competitive advantage is a major goal sought to be attainable by all organizations. Furthermore, achieving it will be through the identification and use of a selected successful competitive strategy, and then managing it in a successful way contributing to increase the value created and strengthening its competitive position in the context of the environment it operates within. The goal of the organization is not only to achieve a competitive advantage, but also to be sustainable to enable the organization to continue to compete strongly under enormous pressure and rapid changes. Organizations should seek to achieve the advantage that is commensurate with their potential and their own capabilities because their lack of

success in determining the competitive advantage that can compete with organizations working in the context of the same environment will threaten their existence and survival in that environment. The Sustainable Competitive Advantage provides many benefits, such as an effective source for attaining superior performance and creating value for the organizations (Vanpoucke, Vereecke, & Wetzelsa, 2014). As a result, businesses and banks are searching for strategic initiatives that will provide them a long-term competitive edge. A company's ability to produce goods or services faster, more efficiently, or for less money than its competitors is known as a competitive edge. These elements enable the producing unit to outperform its competitors in terms of sales or margins.

Theoretical Framework

Theory of Planned Behaviour

The theory of planned behavior was proposed by Icek Ajzen in 1985 through his article "From intentions to actions: A theory of planned behavior." The theory was developed from the theory of reasoned action, which was proposed by Martin Fishbein together with Icek Ajzen in 1980. The theory of reasoned action was in turn grounded in various theories of attitude such as learning theories, expectancy-value theories, consistency theories (such as Heider's balance theory, Osgood and Tannenbaum's congruity theory, and Festinger's dissonance theory) and attribution theory. According to the theory of reasoned action, if people evaluate the suggested behavior as positive (attitude), and if they think their significant others want them to perform the behavior (subjective norm), this results in a higher intention (motivations) and they are more likely to do so. A high correlation of attitudes and subjective norms to behavioral intention, and subsequently to behavior, has been confirmed in many studies. The theory of planned behavior (abbreviated TPB) is a theory that links beliefs and behavior. The concept was proposed by Icek Ajzen to improve on the predictive power of the theory of reasoned action by including perceived behavioural control. It is a theory explaining human behaviour. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns and healthcare. The theory states that attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors.

Technology Diffusion Theory

The common lens through which theorists examine the development and adoption of new ideas is technology diffusion theory. Diffusion is essentially the process through which an idea gets embraced and obtains acceptance by people on an individual or group basis. The Diffusion theory is a complicated collection of related ideas that take the adoption process as a whole. The most notable explanation of diffusion research is by Rogers (1995), who described diffusion as consisting of four elements: innovation, which is defined as an idea, behavior, or item that an individual or group of adopters perceives as novel. Communication channels: ways for new ideas to go from one person to the next or from one group to another. Time is the non-spatial period during which a diffusion event occurs. The process of innovation diffusion, the amount of time it takes for an individual or group to adopt an invention, and the social

system—a network of interconnected elements working together to solve problems in order to achieve objectives—are among the occurrences.

Empirical Literature Review

Christopher, Mike and Amy (2016) carried out a survey of 437 bank clients in 33 companies in the Nigerian state of Ekiti. Their goal was to examine how the availability of financial technology services, among other things, affected bank clients' decisions about which banking institution to use. The study found that customers' choice of bank is not significantly influenced by the availability of financial technology services such as automated teller machines, online banking, and telephone banking. However, it should be noted that the study is not particularly concerned with how financial technology affects financial inclusion, and that primary data was utilized for the study, which could not be as accurate as secondary data.

In another related study, Mansur (2017), utilized a qualitative research approach to examine how technology may help rural India become financially inclusive. The goal of the study was to evaluate how information and communication technology may help the country achieve financial inclusion and reduce financial exclusion. It also examined the various ICT applications that banks are using. His research showed that the development of financial technology is significantly aided by information and communication technology.

Dayadhar, (2019) posited that this would directly or indirectly reflect the effectiveness of the financial institution's efforts to bring-in underprivileged people to the mainstream financial system, especially in rural area support in achieving inclusive growth. The study concluded that modern information and communication technology can act as a tool to develop a platform which helps to extend financial services to remote areas. Internet banking and automated teller machines are notably mentioned in the paper as two viable alternatives for attaining financial inclusion. In order to provide banking services to the unbanked people, who are financially excluded, new pathways are being opened up by technology such as online banking and automated teller machines. However, because the study is qualitative and depended on earlier empirical results and conclusions, it is open to subjectivity and prejudice.

Ene (2019) carried out a study on the impact of electronic banking on financial inclusion with an effort to fetch out the key drivers of financial inclusion in the wake of Central Bank of Nigeria's cashless policy. His data analysis incorporated regression utilizing ordinary least square. He notably mentioned the point of sale as the primary driver of financial inclusion in Nigeria in his argument that electronic banking has a substantial impact on financial inclusion. Although he attributes the inefficiency of automated teller machines to the contribution of financial inclusion as much as PoS, the out of service report from the machine is frequently the consequence of network problems, keeping the clients waiting until the services are restored. He also highlights additional technological issues that seriously impede the machine's ability to promote financial inclusion, such as dispensing errors and the withholding of consumers' cards after usage.

Mago and Chitokwindo (2014) explored how financial technology in Zimbabwe has affected financial inclusion, with a particular focus on mobile banking in the region of Masvingo. The study used a survey design and a qualitative

research approach. They said that Zimbabwe's financial inclusion is severely impacted by electronic banking. Their findings demonstrate that low-income individuals are open to using mobile banking, which will increase financial inclusion. They made this argument because online banking is simple to use, convenient, affordable, and secure. Although they used an acceptable approach, it can be shown that their study's scope is too limited because they only understudied one area rather than the entire nation, which would have led to a more thorough review.

Asare and Sakoe (2015) examined the effects of financial technology on financial services in Ghana using qualitative research method. The study found out that the advent of financial technology in Ghana has enhanced accessibility to a wide range of banking products and also delivery of banking services has been made increasingly faster to cover a wide range of customers or people referred by existing customers. Therefore, the study concluded that financial technology has fundamentally changed the business of banking in Ghana from a financial intermediary to a financial shopping mall providing a one-stop-shop for various financial services.

In a similar study carried out by Asare and Sakoe (2015) According to research on how electronic banking has impacted financial services in Ghana, these services have been impacted by empowering banking clients, raising the bar for service delivery, and making banking more sophisticated and competitive. The favorable effects of electronic banking on bank productivity, banking transactions, cashier output, bank patronage, delivery of bank services, customer service, and bank services have been established. The number of individuals in Ghana who have access to financial services has increased as a result of electronic banking, which has also allowed banks to save costs and provide banking services more quickly, effectively, and with fewer employees.

In another related study, Dymski and Gary (2015) observed that today almost all banks are adopting information and communication technology as a means to enhance service quality. They are providing information and communication technology-based e-service to their customers in form of financial technology such as internet banking or online banking. It brings convenience and customer centricity, enhances service quality and cost effectiveness in banking and increases customer satisfaction in banking services. Thus, in line with Mago and Chitokwindo (2014), they agreed that financial technology positively impacts financial inclusion.

Akhisar, Tunay and Tunay (2015) used dynamic board information techniques to implement an electronic-based managing an account system in 23 developed and developing countries' electronic financial services in 2005 and conduct research on the effects of this system on the performance of Egyptian banks. The study's findings established that the ratio of ATMs to branches had a significant impact on both developed and developing country banks' productivity. These findings also showed how widely used electronic account management services were. Due to differences in the socio-social structure, electronic managing an account base, and nations' varying levels of development, the focus also discovered that several variables had a negative link.

Monyoncho (2018) carried out a study to find out the relationship between E-Banking and financial inclusion as executed by the deposit money banks in Kenya utilizing

optional data for the period of five years. The discoveries of the study uncovered that ATM developments, and Mastercards, offered convenience for the customers to access formal financial services in large proportion. The study presumed that selection of E-Banking has positive effect to the financial inclusion in Kenya and prescribed that deposit money banks ought to keep putting resources into the development of automated teller machines for efficiency. Andrianaivo and Kpodar (2019) in their study found evidence that, in Africa, large share of the population are financially excluded and therefore resort to the use of informal financial services. Additionally, they discovered that people had a reasonably high tendency to save money, but that their ability to do so was limited by limited access to financial services and a lack of sophisticated financial technology. According to reports, the issue is made worse by a lack of financial technology and a dearth of bank offices and ATMs in this area. Evidence from the study also showed that people in Africa view investing in mobile technology as a necessity because it accounts for a significant portion of their earnings. This interaction between mobile phone penetration and financial inclusion is positive and significant in the growth regression, according to the study. It follows that a mobile financial services platform may be the solution to closing the financial technology divide.

In a study conducted by Osabuohien (2018) on the capacity of ICT to enhance the operations of Nigerian banks in the context of on-going reforms of the banking sector. Using a sample of 180 banks staff from 3 banks in Lagos metropolis and the multiple regression analysis frameworks, he examined the factors determining the rate at which ICT is used in banks and the impact of ICT on operations of the banks. He found that the main variables that explain the rate of ICT use by bank staff were their age, educational status, extent of computer literacy, and the type of IT facility involved. Madueme (2015)^[44] evaluated the impact of ICT on banking efficiency in Nigeria using a survey of 13 banks. Based on the CAMEL rating and a transcendental logarithmic function of the banks, she concluded that the efficiency values obtained through the CAMEL rating system were higher during post adoption era than before adoption and estimated that a 1% increase in ICT capital on average leads to 0.9185 Naira increase in bank output post ICT adoption era. This agrees with her earlier finding in her 2009 study in which she concluded that information technology has impact on operational efficiency in the studied banks.

Using data from 6 banks, Agboola (2015)^[8] investigated the effects of computer automation on banking services in Lagos and came to the conclusion that electronic banking has significantly enhanced the services provided by banks to their clients. Agboola (2016)^[7] analyzed the reaction of Nigerian banks to the use of ICT as a follow-up. He selected 36 out of the 89 banks that were in operation at the time, and using both structural analyses and the impact analysis model, he assessed the type and degree of adoption of innovative technologies, the degree of utilization of the identified technologies, and the impact of the adoption of IT devices on banks operations. The results showed that ICTs had a positive effect on each of the evaluation criteria, including competitiveness, market segmentation, increased revenue, accurate forecasting, and modernization for a global impact, and time savings, error rate reduction, management choices, and transaction speed for a local impact.

Maiyaki and Mokhtar (2015)^[45] looked at the impact of the

availability of electronic banking services among other factors in a research to identify the factors influencing consumers' choice of banks in Nigeria. Based on a survey of 407 bank customers in 33 commercial and public organizations in Kano, Nigeria, they discovered that consumers' decisions about which bank to use are not significantly influenced by the availability of electronic banking services including ATMs, internet banking, and telephone banking. This finding was justified on the grounds that ICTs had permeated the Nigerian banking sector to such an extent that all enterprises in the sector had adopted the ICT mindset, rendering it useless as a tool for consumers to use to compete.

3. Methodology

The research used a descriptive survey methodology. For the purpose of addressing the study's research questions, this technique gave explanations of the variables. The Guaranty Trust Bank employees at its Lagos headquarters offices makes up the population of this research. Data from Guaranty Trust Bank and Zenith Bank of Nigeria Plc's Annual Report (2020) showed that Guaranty Trust Bank's headquarters office in Lagos state employed 263 people. The study used a

multi-stage sampling strategy, with the stratified sampling approach being used in the first stage. The employees have to be divided into groups based on their departments. The proportional sampling methodology was utilized in the second stage, and the simple random sample method was used in the third stage to choose respondents from each department, following the practice of earlier studies. The researcher used a questionnaire to gather information from the respondents. Descriptive and inferential statistics will be used to analyze the bio-data information and the research questions posed, and Pearson correlation statistics will be used to assess the hypotheses put forth in order to accept or reject them.

4. Data Presentation, Analysis Results and Discussion

A total of two hundred (200) copies of questionnaire were administered among the respondents while one hundred and ninety five (195) were fully completed and returned. The analysis was carried out using Statistical Packages for Social Science (SPSS).

H₀₁: Internet banking has no significant effect on Nigerian banking system.

Table 1: Internet banking

Correlations			
		Internet banking	Nigerian banking system
Internet banking	Pearson Correlation	1	.672**
	Sig. (2-tailed)		.002
	N	195	195
Nigerian banking system	Pearson Correlation	.672**	1
	Sig. (2-tailed)	.002	
	N	195	195

** . Correlation is significant at the 0.05 level (2-tailed).

Interpretation

The interpretation of the hypothesis one tested, evidence from table above shows that internet banking has significant effect on Nigerian banking system. This was found out at the significant value of (.002) and Pearson moment correlation value (.672). Hence, the null hypothesis (H₀) was rejected

and thereby concludes that internet banking has significant effect on Nigerian banking system.

H₀₂: Automated Teller Machines has no significant effect on Nigerian banking system.

Table 2: Automated Teller Machines

Correlations			
		Automated Teller Machines	Nigerian banking system
Automated Teller Machines	Pearson Correlation	1	-.654**
	Sig. (2-tailed)		.000
	N	195	195
Nigerian banking system	Pearson Correlation	-.654**	1
	Sig. (2-tailed)	.000	
	N	195	195

** . Correlation is significant at the 0.05 level (2-tailed).

Interpretation

The interpretation of the hypothesis two tested, evidence from table above shows that automated teller machines has significant effect on Nigerian banking system. This was found out at the significant value of (.000) and Pearson

moment correlation value (.654). Hence, the null hypothesis (H₀) was rejected and thereby concludes that automated teller machine has significant effect on Nigerian banking system.

H₀₃: Point of Sales has no significant effect on Nigerian banking system.

Table 3: Point of Sales

Correlations			
		Point of Sales	Nigerian banking system
Point of Sales	Pearson Correlation	1	.436**
	Sig. (2-tailed)		.003
	N	195	195
Nigerian banking system	Pearson Correlation	.436**	1
	Sig. (2-tailed)	.003	
	N	195	195
**. Correlation is significant at the 0.05 level (2-tailed).			

Interpretation

The interpretation of the hypothesis three tested evidence from table above shows that point of sales has significant effect on Nigerian banking system. This was found out at the significant value of (.003) and Pearson moment correlation value (.436). Hence, the null hypothesis (Ho) was rejected and thereby concludes that point of sales has significant effect on Nigerian banking system.

5. Conclusion and Recommendation

Conclusion

Generally, there has been significant investment in the Nigeria's technology and innovation space. According to the Nigeria Start-up Funding Report, (2017) the total amount of investment in technology companies in the country within the periods starting Q1 to Q3 2018 stood at \$118,463,785 with 73 percent of this sum invested in fintech companies. These numbers demonstrate that innovative business ideas with strong investor appeal continue to come out of Nigeria. The recipients of these investments span across payments, P2P lending, financial management and financial inclusion within the financial services industry (Akindamola, 2018). From the above, it is clear that fintech has a significant influence on our economy and has the unimaginable potential to spark a new age of competition, innovation, and job-creating productivity. The way financial services are provided is already being impacted by these continuous changes in the financial environment brought on by fintech. Although many stakeholders are paying more attention to the emerging global trends, they also pose their own problems to the Nigerian financial sector. These difficulties have been accurately identified, and coping mechanisms have been suggested in this effort.

6. Recommendations

It is believed that these recommendations, if implemented will go a long way in mitigating the risks associated with fintech disruptions:

- It is important to remember that fintech simply aims to reinvent how financial services are provided; it will not completely replace human participation in the provision of financial services. Therefore, there is a critical need for employee development in the financial industry in Nigeria. Since humans will ultimately be in charge of how fintech runs, staff should take proactive measures to upgrade their skills to complement an age of automation.
- Those who do not make future plans will be hurt by fintech disruptions. The Nigerian government must immediately implement the necessary technical and infrastructural changes for the Nigerian financial sector since the country lacks the infrastructure to manage fintech disruptions in the near future.

- In order to develop successful strategies for consistently retaining and enhancing the abilities of the employee capable of handling the dynamism of financial technology, organizations should always update their policies and practices regarding their talent management system. According to the survey, companies should provide their workers with a positive work environment in order to retain the greatest personnel and maximize organizational performance. This will stop other companies from stealing their employees.
- The report also suggests integrating the talent management system into all facets of human resource management. Talent management, recruiting, development, diversity, retention, and succession planning strategies all clearly depend on one another.

7. References

- Abdulsalam OD. Impact of Information Technology on Corporate Performance: A Study of Selected Banks in Nigeria. PhD thesis, Usmanu Danfodiyo University, Sokoto; 2006;1:240-258.
- Abubakar A, Rasmains BT. The impact of ICT on banks' performance and customer service delivery in the banking industry. International Journal Latest Trends Finance Economic Science. 2017;2:1.
- Accad M. The Future of Electronic Banking in Nigeria: The Role of the Internet. US Embossing Sponsored E-Week; c2009-2019.
- Acharya RN, Kagan A, Lingam SR, Gray K. Impact of website usability on performance: A heuristic evaluation of community bank homepage implementation. Journal of Business & Economics Research. 2018;6(6):139-148.
- Acharya VV, Yorulmazer T. Information contagion and bank herding. Journal of Money, Credit and Banking. 2018;40(1) 215-231.
- Adeleke P. Human resource management strategy for small and medium scale enterprises. International Journal of Management Service and Information Technology. 2015;1(1):60-72.
- Agboola A. Information and communication technology (ICT) in banking operations in Nigeria: An evaluation of recent experiences; c2016. Available from: <http://unpan1.un.org/intradoc/groups/public/documents/AAPAM/UNPAN026533.pdf> [Accessed June 10, 2017].
- Agboola AA. Impact of electronic banking on customer services in Lagos, Nigeria. Ife Journal of Economics and Finance. 2015;5(1&2).
- Agboola AA, Salawu M. Impact of electronic banking on customer services in Lagos, Nigeria. Ife Journal of Economics and Finance. 2019;5(1&2).
- Agboola AA. Impact of electronic banking on customer services in Lagos, Nigeria. Ife Journal of Economics and

- Finance. 2016;5:1-2.
11. Aghaunor L, Fotoh X. Factors affecting e-commerce adoption in Nigerian banks. Paper presented at IT and Business Renewal, Jonkoping International Business School; c2016.
 12. Akindamola S. Information technologies and business value: An analytic and empirical investigation. *Information Systems Research*. 2019;6(1):3-23.
 13. Akintoye RI. *Investment Division Concept, Analysis and Management*. Lagos: Glorious Hope Publishers; c2018.
 14. Akpan N. E-payment solutions: Are banks getting it right? *Business Day*; Wednesday, February 27, c2018.
 15. Amadi H. The efficacy of small and medium scale enterprises (SMEs) as a catalyst for economic growth and development. *Lagos Journal of Business*. 2017;2(1):19-25.
 16. Aragba-Akpore S. The backbone of banks' service regeneration. *Money Watch*. 1998;22:23.
 17. Badescu M, Garces-Ayerbe C. The impact of information technologies on firm productivity: Empirical evidence from Spain. *Technovation*. 2019;29(4):122-129.
 18. Baldwin JR, Sabourin D. Advanced technology use and firm performance in Canadian manufacturing in the 1990s. *Industrial and Corporate Change*. 2017;11(4):761-789.
 19. Baldwin JR, Sabourin D, Smith D. Firm performance in the Canadian food processing sector: The interaction between ICT, advanced technology use and human resource competencies. In: OECD, *The Economic Impact of ICT: Measurement, Evidence and Implications*. Paris: OECD; c2018. p. 153-181.
 20. Bayo-Moriones A, Lera-Lopez F. A firm level analysis of determinants of ICT adoption in Spain. *Technovation*. 2017;27(8):352-366.
 21. Berger AN. The economic effects of technological progress: Evidence from the banking industry. *Journal of Money, Credit, and Banking*. 2013;35(2):141-176.
 22. Bhattacharyya S, Nanda VK. Client discretion, switching costs and banking innovation. *Review of Banking Studies*. 2015;13:1101-1127.
 23. Brynjolfsson E, Hitt L. Information technology as a factor of production: The role of differences among firms. *Economics of New Innovation and New Technology*. 2015;3(4):183-200.
 24. Brynjolfsson E, Hitt L. Paradox Lost? Firm-level evidence on the returns to information systems spending. *Management Science*. 2016;42(4):541-558.
 25. Brynjolfsson EA. *Understanding the Digital Economy: Data, Tools, and Research*. Cambridge, Massachusetts and London, England: MIT Press; c2017.
 26. Brynjolfsson EA, Kahin BE. Environments for entrepreneurship development: Key dimensions and research implications. *Entrepreneurship Theory and Practice*. 2017;18(4):43-62.
 27. Calderon S, Servén J. Extent and scope of diffusion and adoption of process innovations in management accounting systems. *International Journal of Accounting and Information Management*. 2014;18(2):118-139.
 28. Chiemeké SC, Ewiewpaefe AE, Chete FO. The adoption of internet banking in Nigeria: An empirical investigation. *Journal of Internet Banking and Commerce*. 2016;11(3):1-10.
 29. Dabworo TD. The Nigerian banking system and the challenges of financial intermediation in the twenty-first century. *Jos Journal of Economics*. 2015;4(1):94-109.
 30. Egland KL, Furst K, Nolle DE, Robertson D. Banking over the Internet. *Quarterly Journal of Office of Comptroller of the Currency*. c1998;17(4).
 31. Ehihamenor F. Information technology in Nigerian banks: The limits of expectations. *Information Technology for Development*. c2018;10:13-24.
 32. Emmanuel OS, Adebayo AA. ICTs, service delivery, and operational performance in Nigerian banks: A survey of empirical research. *An International Multidisciplinary Journal, Ethiopia*. 2016;5(4):44-52.
 33. Experience. *Eurasian Journal of Business and Economics*. 2015;2(4):43-62.
 34. Haq MF. *The role of information systems in Islamic banking: An ethnographic study*. University of London: London. Investment. 2015;3(2):61-69.
 35. Irechukwu G. Enhancing the performance of banking operations through appropriate information technology. In: *Information Technology in Nigerian Banking Industry*. Ibadan: Spectrum Books; c2015. p. 63-78.
 36. Johnson M. Overview of electronic payment systems in Nigeria: Strategic and technical issues. *Central Bank of Nigeria Bullion*. 2005;29(2):8.
 37. Josiah A, Nancy K. The relationship between electronic banking and banking performance among commercial banks in Kenya. *Journal of Finance and Investment Analysis*. 2012;1(3):99-103.
 38. Khalifa K. Building strong management and responding to change. *Banking Institutions in Developing Markets*. 2015;1(2).
 39. Koellinger P. Why IT matters – An empirical study of e-business usage, innovation, and firm performance. *DIW Berlin Discussion Paper*. c2015;495.
 40. Laudon DP, Laudon JP. *Management Information Systems: Organization and Technology in the Network Enterprises*. 4th ed. New York: Prentice Hall International; c2001.
 41. Lichtenberg FR. The output contributions of computer equipment and personnel: A firm-level analysis. *Economics of Information and New Technology*. 2015;3(3):212-223.
 42. Longley L, Shain M. *Dictionary of Information Technology*. London: The Macmillan Press Ltd; 1989.
 43. Loveman GW. An assessment of the productivity impact of information technologies. In: Allen TJ, Morton MS, editors. *Information Technology and the Corporation of the 1990s*. c2018.
 44. Madueme IS. Banking efficiency and information technology in Nigeria: An empirical investigation. *International Journal of Economic and Development Issues*. 2015;8(1&2):86-96.
 45. Maiyaki AU, Mokhtar SSM. Effects of electronic banking facilities, employment sector, and age-group on customers' choice of banks in Nigeria. *Journal of Internet Banking and Commerce*. 2015;15(1).
 46. Malhotra P, Singh B. The impact of internet banking on bank performance and risk: The Indian experience. *International Journal of Banking, Accounting and Finance*; c2019.
 47. Nzotta SM, Okereke EJ. Banking deepening and economic development of Nigeria: An empirical investigation. *African Journal of Accounting*,

- Economics, Finance and Banking Research. 2019;5(5).
48. Ojokuku RM, Sajuyigbe AS. The impact of electronic banking on human resources performance in the Nigerian banking industry. *International Journal of Economic Development Research and Investment*; c2012.
 49. Okunoye A, Bada AO, Frolick M. IT innovations and e-service delivery: An exploratory study. In: *Proceedings of the 9th International Conference on Social Implications of Computers in Developing Countries*. Sao Paulo, Brazil; c2017.
 50. Olatokun WM, Igbinedion LJ. The adoption of automatic teller machines in Nigeria: An application of the theory of diffusion of innovation. *Issues in Informing Science and Information Technology*. 2019;6:373-393.
 51. Ordanini A, Rubera G. How does the application of an IT service innovation affect firm performance? A theoretical framework and empirical analysis on e-commerce. *Information & Management*. 2015;47(7):60-67.
 52. Osabuohien ES. ICT and Nigerian banks reforms: Analysis of anticipated impacts in selected banks. *Global Journal of Business Research*. 2018;2(2):67-76.
 53. Ovia J. Internet banking: Practices and potentials in Nigeria. Paper presented at a seminar organized by the Institute of Chartered Accountants of Nigeria (ICAN); Lagos Sheraton Hotel & Towers, Ikeja; c2001.
 54. Papp RM. *Strategic Information Technology: Opportunities for Competitive Advantage*. London: Idea Group Publishing; c2016.
 55. Pilat D. The economic impacts of ICT: Lessons learned and new challenges. Paper prepared for Eurostat Conference Knowledge Economy – Challenges for Measurement; c2015.
 56. Pohjola M. The adoption and diffusion of ICT across countries: Patterns and determinants. In: Jones DC, editor. *The New Economy Handbook*. San Diego, CA: Academic Press; c2018. p. 77-100.
 57. Roller SD, Waverman DE. Information technology and productivity: Where are we now and where are we going? *Finance and Economic Discussion Series*. c2019;2002-29.
 58. Sajuyigbe AS, Alabi E. Impact of information and communication technology in selected small and medium enterprises in Osogbo metropolis, Nigeria. *Journal of School of Communication and Information Technology, Federal Polytechnic, Offa*. 2012;3(1):183-188.
 59. Saythe M. The impact of internet banking on performance and risk profile: Evidence from Australian credit unions. *Journal of Banking Regulation*. 2005;6:163-174.
 60. Sullivan RJ. How has the adoption of internet banking affected performance and risk at banks? A look at internet banking in the 10th Federal Reserve District. *Federal Reserve Bank of Kansas City Banking Industry Perspective*. c2015;1-16.
 61. Thiel M. Finance and economic growth: A review of theory and the available evidence; c2015. Available from: http://europs.eu.int/economy_finance.
 62. Van Ark B, Piatcovski M. Productivity innovation and ICT in old and new Europe. *Research Memorandum GD-69*. Groningen Growth and Development Center; c2017.
 63. Woherem E, Adeogri D. The telephone and computer in banking: Constraints and challenges of information technology in the Nigerian banking industry. Ibadan: Spectrum Books; c2015. p. 94-97.
 64. Woherem EW. *Information Technology in the Nigerian Banking Industry*. Ibadan: Spectrum; c2010.
 65. Woherem EW. *Information Technology in the Nigerian Banking Industry*. Ibadan: Spectrum; c2017.